IN THE CLAIMS

Please cancel claims 7-8 without prejudice, amend claim 9 and add claims 10-13 as follows:

1. (Previously Presented) A receiver for receiving a dual code spread spectrum signal, comprising:

a plurality of diversity antennas,

an adaptive forward equal gain combiner having a plurality of branches, each branch being coupled to a respective one of said diversity antennas, each diversity antenna receiving a respective carrier signal,

wherein said combiner comprises:

means for selecting a signal in one of said branches as a reference signal,

means for co-phasing the carrier signals in each of the respective branches with the reference signal,

means for splitting an output from the combiner into two output channels,

means for demodulating the signals in the output channels,

means for correlating the signals in each of the output channels with respective ones of the dual spreading codes and means for recovering data from the correlated signals.

Claims 2-3 (Canceled)

4.(Previously Presented) A receiver as claimed in claim 1, wherein each branch comprises:

a multiplier having a first input for a signal from its antenna and a second input for a phase adjusted local oscillator signal and an output for a difference signal,

a filter for removing high order harmonics from the difference signal,

a weighting controller having means for producing a weighting signal which is applied to a first phase shifter for adjusting the phase of the local oscillator signal and a weighting factor related to the selected reference signal,

a second phase shifter having an input for a signal derived from the antenna, said second phase shifter having an input for the weighting factor whereby the input signal is co-phased with the selected reference signal, and

a signal combiner for combining the selected reference and co-phased signals from the respective branches.

5. (Previously Presented) A receiver as claimed in claim 1, wherein a centralized weighting controller comprises for each of said branches:

a multiplier having a first input for a signal from its antenna and a second input for a phase adjusted local oscillator signal and an output for a difference signal,

a filter for removing high order harmonics from the difference signal,

a weighting controller having means for producing a weighting signal which is applied to a first phase shifter for adjusting the phase of the local oscillator signal and a weighting factor related to the selected reference signal,

a second phase shifter having an input for a signal derived from the antenna, said second phase shifter having an input for the weighting factor whereby the input signal is co-phased with the selected reference signal, and

a signal combiner for combining the selected reference and co-phased signals from the respective branches.

6. (Previously Presented) A receiver as claimed in claim 5, wherein the weighting controller comprises a controller for receiving digitized filtered outputs of the respective multipliers, a first memory means storing the weighting signals coupled to the controller, a second memory means storing the weighting factors coupled to the controller, the controller having an outputs coupled respectively to the first and second phase shifters.

Claims 7-8 (Canceled)

9. (Currently Amended) A receiver for receiving a dual code spread spectrum signal, comprising:

a plurality of diversity antennas,

an adaptive forward equal gain combiner having a plurality of branches, each branch being coupled to a respective one of said diversity antennas,

wherein each of said branches comprises:

frequency down conversion means and phase compensating means, ~~in that~~ wherein a local oscillator is coupled to each of said compensating means, ~~in that~~ and wherein each of said phase

compensating means comprises:

means for adjusting the phase of the local oscillator to minimize the phase difference between the adjusted phase of the local oscillator frequency and the phase of the signal received by the respective branch, and

means for selecting the branch having a minimum phase deviation with respect to the local oscillator frequency and treating that signal as a reference signal,

means for splitting an output from the combiner into two output channels,

means for demodulating the signals in the output channels,

means for correlating the signals in each of the output channels with respective ones of the dual spreading codes and means for recovering data from the correlated signals.

10. (New) A communication system having a receiver for receiving a dual code spread spectrum signal, said receiver comprising:

a plurality of diversity antennas,

an adaptive forward equal gain combiner having a plurality of

branches, each branch being coupled to a respective one of said diversity antennas, each diversity antenna receiving a respective carrier signal,

wherein said combiner comprises:

means for selecting a signal in one of said branches as a reference signal,

means for co-phasing the carrier signals in each of the respective branches with the reference signal,

means for splitting an output from the combiner into two output channels,

means for demodulating the signals in the output channels, and

means for correlating the signals in each of the output channels with respective ones of the dual spreading codes and means for recovering data from the correlated signals.

11. (New) A communication system as claimed in claim 10, wherein each branch comprises:

a multiplier having a first input for a signal from its antenna and a second input for a phase adjusted local oscillator signal and an output for a difference signal,

a filter for removing high order harmonics from the difference signal,

a weighting controller having means for producing a weighting signal which is applied to a first phase shifter for adjusting the phase of the local oscillator signal and a weighting factor related to the selected reference signal,

a second phase shifter having an input for a signal derived from the antenna, said second phase shifter having an input for the weighting factor whereby the input signal is co-phased with the selected reference signal, and

a signal combiner for combining the selected reference and co-phased signals from the respective branches.

12. (New) A communication system as claimed in claim 10, wherein a centralized weighting controller comprises for each of said branches:

a multiplier having a first input for a signal from its antenna and a second input for a phase adjusted local oscillator signal and an output for a difference signal,

a filter for removing high order harmonics from the

difference signal,

a weighting controller having means for producing a weighting signal which is applied to a first phase shifter for adjusting the phase of the local oscillator signal and a weighting factor related to the selected reference signal,

a second phase shifter having an input for a signal derived from the antenna, said second phase shifter having an input for the weighting factor whereby the input signal is co-phased with the selected reference signal, and

a signal combiner for combining the selected reference and co-phased signals from the respective branches.

13. (New) A communication system as claimed in claim 12, wherein the weighting controller comprises a controller for receiving digitized filtered outputs of the respective multipliers, a first memory means storing the weighting signals coupled to the controller, a second memory means storing the weighting factors coupled to the controller, the controller having an outputs coupled respectively to the first and second phase shifters.